

REMARKS

Claims 1-39 are pending. Claims 1-15 and 32-39 were rejected. Claims 16-31 are allowed. Claims 1 and 32 are amended. No new matter is added.

Claims 1-15 and 32-39 were rejected under 35 USC 101 as being directed to non-statutory subject matter. The Examiner agreed that claims 1-15 and 32-35 are allowable once the 35 USC 101 rejections are overcome.

On February 12, 2009, the Examiner and Applicants' representative (Fengling Li, Reg. No. 62,962) had a telephone conversation during which they discussed the rejection of claims 1 and 32 under 35 USC §101. During the call, the Examiner agreed that the amendments to claims 1 and 32 presented here would overcome the 101 rejections.

Independent claims 1 and 32 as amended recite statutory subject matter. Specifically, claim 1 as amended describes a computer implemented method for robust single-pass variable bit rate video encoding. For example, as amended, claim 1 (in part) recites:

for each frame of the video sequence, performing the following steps:
allocating a number of bits to the frame;
determining a quant with which to encode the frame, the quant being a function of at least the buffer's fullness, a base quant envelope and a base quant envelope control associated with the frame, wherein the base quant envelope and the base quant envelope control are based on the type of the frame, and the fluctuation of the base quant envelope is controlled by the base quant envelope control;
encoding the frame according to the determined quant;
outputting the encoded frame; and
updating the fullness of the buffer based on any over/underused bits for the frame.

Claim 1 relates to encoding each frame of a video sequence through a statutory process that transforms a video frame to a different state or thing as a series of steps are performed. For example, given a frame of a video sequence, the claimed invention allocates a number of bits to the frame, determines a quant (i.e., quantization value) with which to encode the frame, and encodes the frame according the determined quant. The claimed invention further outputs the encoded frame and updates the fullness of a video buffer. Thus, the claimed invention transforms a video frame to an encoded frame (i.e., a different thing). Such transformation clearly recites a statutory “process” under 35 USC 101.

Thus, claim 1 as amended is directed to subject matter, and the rejection should be withdrawn. Dependent claims 2-14 are also directed to subject matter.

The Applicants have also amended claim 32 as suggested by the Examiner. As amended, claim 32 recites a computer program product having a computer-readable storage medium storing a computer program for robust single-pass variable bit rate video encoding. Support for the amendment can be found, for example, in the originally-filed disclosure at paragraphs 16, 21 and 44, and original claim 32. Thus, claim 32 and dependent claims 33-39 recite statutory subject matter.

The Examiner is invited to contact the Applicant’s representative listed below in order to advance the prosecution of this application.

Respectfully submitted,
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